

**REMARKS**

The Office Action mailed February 8, 2005 has been carefully considered.

Reconsideration in view of the following remarks is respectfully requested.

Applicants are further grateful for the indication of allowability of claims 4, 5, 18, and 19, subject to the 35 U.S.C. §112 issues outlined in the Office Action and to their re-writing in independent form. Claim 4 has been rewritten in independent form to include the limitations of independent claim 1, and claim 18 has been rewritten in independent form to include the limitations of independent claim 16.

Claims 5, 7-13, 15, 21-24, 26, 29, 31, 33, 42, and 44 have been amended to further particularly point out and distinctly claim subject matter regarded as the invention. Support for these changes may be found in the specification, page 10, line 28 – page 11, line 21. The text of claims 19, 25, 27, 28, 30, 32, 34, 43, 45 and 46 is unchanged, but their meaning is changed because they depend from amended claims.

Claims 1, 2, 3, 16, 17, 35-41, 47-54 have been canceled, without prejudice or disclaimer of the subject matter contained therein.

New claims 55-66 also particularly point out and distinctly claim subject matter regarded as the invention. Support for these claims may be found in the specification, page 10, line 28 – page 11, line 21.

**Informal Objections**

With this amendment it is respectfully submitted the claims satisfy the statutory requirements.

The 35 U.S.C. § 102 Rejection

Claims 1-3, 7-9, 16, 17, 21, 24-25, 32-38, 48-50, 52-54 were rejected under 35 U.S.C. § 102(b) as being allegedly anticipated by Langrana<sup>1</sup>. This rejection is respectfully traversed.

According to the M.P.E.P., a claim is anticipated under 35 U.S.C. § 102(a), (b) and (e) only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.<sup>2</sup>

Claims 1-3

With respect to claims 1-3, claims 1-3 are cancelled herewith, accordingly with respect to these claims, the rejection is now moot.

Claim 7

With respect to claim 7, the examiner cites figure 1 of Lagrana as showing feedback simulating a pulse. In figure 1 of Lagrana, the pulse shown is part of the force-feedback system. In the invention described in claim 7, however, the pulse is a pulse associated with the simulated vascular blood flow in the virtual body part. Claim 7 is therefore amended to particularly point out and distinctly claim subject matter regarded as the invention.

Claim 8

With respect to claim 8, the examiner cites figures 3 and 5 of Lagrana as showing a simulation of a feature on or below the surface of the graphical representation. In figures 3 and 5

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<sup>1</sup> Noshir A. Langrana, *et al.*, "Dynamic Force Feedback in a Virtual Knee Palpation" *Artificial Int. in Med.* 6 (1994) 321-333.

<sup>2</sup> Manual of Patent Examining Procedure (MPEP) § 2131. See also *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

of Lagrana, the simulation is of a feature in a single region on or below the surface of the graphical representation. In the invention described in claim 8, however, the simulation is of a feature in more than one region on or below the surface of the graphical representation. Claim 8 is therefore amended to particularly point out and distinctly claim subject matter regarded as the invention.

Claim 9

With respect to claim 9, the examiner cites figure 3 of Lagrana as showing a haptic sensation comprising a vibration. In figure 3 and the supporting text of Lagrana, the haptic feedback is described simply as “force feedback;” the art does not describe, implicitly or explicitly, haptic feedback comprising a vibration. Further, in the invention described in claim 9, the haptic sensation comprising a vibration is one of two haptic sensations. Therefore, the Lagrana reference does not expressly or inherently describe a haptic sensation comprising a vibration, and further, claim 9 is therefore amended to particularly point out and distinctly claim subject matter regarded as the invention.

Claims 16 and 17

With respect to claims 16 and 17, claims 16 and 17 are cancelled herewith, accordingly with respect to these claims, the rejection is now moot.

Claim 21

With respect to claim 21, the examiner cites figure 3 of Lagrana as showing a haptic sensation comprising a vibration. In figure 3 and the supporting text of Lagrana, the haptic

feedback is described simply as “force feedback;” the art does not describe, implicitly or explicitly, haptic feedback comprising a vibration. Further, in the invention described in claim 9, the haptic sensation comprising a vibration is one of two haptic sensations. Therefore, the Lagrana reference does not expressly or inherently describe a haptic sensation comprising a vibration, and further, claim 21 is therefore amended to particularly point out and distinctly claim subject matter regarded as the invention.

#### Claim 24

With respect to claim 24, examiner cites Lagrana as showing a method for interfacing a user with a computer running an application program, a computer generating a graphical environment comprising a cursor and a graphical representation of at least a portion of a living body, controlling the cursor in relation to manipulation of at least a portion of the object by the user, and outputting a haptic sensation to the user when the cursor interacts with the graphical representation to simulate a palpated feature on or below the surface of the graphical representation. Lagrana, however, allegedly discloses the above methods only in reference to a single haptic feedback, whereas the invention in claim 24 describes a system wherein there are two different haptic feedbacks. Claim 24 is therefore amended to particularly point out and distinctly claim subject matter regarded as the invention.

#### Claims 25-34

As to dependent claims 25-34, the argument set forth above is equally applicable here. The base claims being allowable, the dependent claims must also be allowable.

Claim 35-38

With respect to claims 35-38, claims 35-38 are cancelled herewith, accordingly with respect to these claims, the rejection is now moot.

Claims 48-50

With respect to claims 48-50, claims 48-50 are cancelled herewith, accordingly with respect to these claims, the rejection is now moot.

Claims 52-54

With respect to claims 52-54, claims 52-54 are cancelled herewith, accordingly with respect to these claims, the rejection is now moot.

The 35 U.S.C. § 103 Rejection

Claims 10-15, 22-23, 26-31, 39-41, 42-46, 51 were rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Langrana<sup>3</sup> in view of prior art. This rejection is respectfully traversed.

According to the Manual of Patent Examining Procedure (M.P.E.P.),

To establish a *prima facie* case of obviousness, three basic criteria must be met. First there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and

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<sup>3</sup> Noshir A. Langrana, *et al.*, "Dynamic Force Feedback in a Virtual Knee Palpation" Artificial Int. in Med. 6 (1994) 321-333.

the reasonable expectation of success must both be found in the prior art, not in the applicant's disclosure.<sup>4</sup>

Specifically, the Office Action contends that the elements of the presently claimed invention are taught in Lagrange except that Lagrange does not teach that the input device of Lagrana could have been used as an input device such as a mouse or any other input device to use for a simulation environment as a input signal receiver, that an input device such as a mouse or any other input device to use for a simulation environment as a input signal receiver which could have a solenoid that produces a waveform, or that an Ethernet connection could have shared multiple computers in a network environment to shared information could have used most of the program stored on memory or DVD or a hard drive.<sup>5</sup> The Office Action further contends that prior art teaches that the input device of Lagrana could have been used as an input device such as a mouse or any other input device to use for a simulation environment as a input signal receiver, that an input device such as a mouse or any other input device to use for a simulation environment as a input signal receiver which could have a solenoid that produces a waveform, or that an Ethernet connection could have shared multiple computers in a network environment to shared information could have used most of the program stored on memory or DVD or a hard drive, and that it would be obvious to one having ordinary skill in the art at the time of the invention to incorporate prior art into Lagrange in order that the input device of Lagrana could have been used as an input device such as a mouse or any other input device to use for a simulation environment as a input signal receiver, that an input device such as a mouse or any other input device to use for a simulation environment as a input signal receiver which could have a solenoid that produces a waveform, or that an Ethernet connection could have shared

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<sup>4</sup> M.P.E.P § 2143.

<sup>5</sup> Office Action ¶ 3.

multiple computers in a network environment to shared information could have used most of the program stored on memory or DVD or a hard drive. The Applicants respectfully disagree for the reasons set forth below.

Claims 10 and 11

With respect to claims 10 and 11, the examiner states that it is well known in the art that the input device of Lagrana could have been used as an input device such as a mouse or any other input device to use for a simulation environment as an input signal receiver. Lagrana allegedly discloses a complex system using a data glove with electronic data monitors and pneumatic controls to provide haptic feedback to the user, whereas claims 10-15 in this application recite limitations to a mouse-like device that provides haptic feedback to the user. Examiner states that the mouse-like device could be replaced with a mouse; however, the input device in this invention is required to provide haptic feedback, which a standard mouse does not provide. Therefore it would not be obvious to use a mouse in place of the complex data glove allegedly disclosed in Lagrange.

The Office action admits that Lagrana does not teach an input device such as a mouse or any other input device to use for a simulation environment as a input signal receiver, but does not provide a specific reference where such a limitation is found, instead arguing that one of ordinary skill in the art would have found it obvious to modify the invention in Challenger to arrive at the additional claim limitation. Therefore, applicant assumes that the Office Action intended to take official notice of facts under M.P.E.P. 2144.03 that the rationale supporting the obviousness rejection is based on common knowledge in the art or "well-known" prior art. Under M.P.E.P. 2144.03, "[i]f the applicant traverses such an assertion the examiner should cite a reference in

support of his or her position." Applicant hereby traverses the assertion and requests that a reference be cited in support of the position outlined in the Office Action.

Claims 12-15

As to dependent claims 12-15, the argument set forth above is equally applicable here. The base claims being allowable, the dependent claims must also be allowable.

Claims 22-23

With respect to claims 22-23, the examiner states that it is well known in the art that the input device of Lagrana could have been used as an input device such as a mouse or any other input device to use for a simulation environment as an input signal receiver which could have a solenoid that produces a waveform. Lagrana allegedly discloses a complex system using a data glove with electronic data monitors and pneumatic controls to provide haptic feedback to the user, whereas claims 22-23 in this application recite limitations to a mouse-like device that provides haptic feedback to the user. Examiner states that said mouse-like device could be replaced with a mouse; however, the input device in this invention is required to provide haptic feedback, which a standard mouse does not provide, nor does a standard mouse provide any sort of waveform. Therefore it would not be obvious to use a mouse in place of the complex data glove allegedly disclosed in Lagrange.

The Office action admits that Lagrana does not teach an input device such as a mouse or any other input device to use for a simulation environment as an input signal receiver which could have a solenoid that produces a waveform, but does not provide a specific reference where such a limitation is found, instead arguing that one of ordinary skill in the art would have found it



obvious to modify the invention in Challenger to arrive at the additional claim limitation.

Therefore, applicant assumes that the Office Action intended to take official notice of facts under M.P.E.P. 2144.03 that the rationale supporting the obviousness rejection is based on common knowledge in the art or "well-known" prior art. Under M.P.E.P. 2144.03, "[i]f the applicant traverses such an assertion the examiner should cite a reference in support of his or her position." Applicant hereby traverses the assertion and requests that a reference be cited in support of the position outlined in the Office Action.

Claims 26 and 27

With respect to claims 26 and 27, the examiner states that it is well known in the art that the input device of Lagrana could have been used as an input device such as a mouse or any other input device to use for a simulation environment as an input signal receiver. Lagrana allegedly discloses a complex system using a data glove with electronic data monitors and pneumatic controls to provide haptic feedback to the user, whereas claims 26 and 27 in this application recite limitations to a mouse-like device that provides haptic feedback to the user. Examiner states that said mouse-like device could be replaced with a mouse; however, the input device in this invention is required to provide haptic feedback, which a standard mouse does not provide. Therefore it would not be obvious to use a mouse in place of the complex data glove allegedly disclosed in Lagrange.

The Office action admits that Lagrana does not teach an input device such as a mouse or any other input device to use for a simulation environment as a input signal receiver, but does not provide a specific reference where such a limitation is found, instead arguing that one of ordinary skill in the art would have found it obvious to modify the invention in Challenger to arrive at the additional claim limitation. Therefore, applicant assumes that the Office Action intended to take

official notice of facts under M.P.E.P. 2144.03 that the rationale supporting the obviousness rejection is based on common knowledge in the art or "well-known" prior art. Under M.P.E.P. 2144.03, "[i]f the applicant traverses such an assertion the examiner should cite a reference in support of his or her position." Applicant hereby traverses the assertion and requests that a reference be cited in support of the position outlined in the Office Action.

Claims 28-31

As to dependent claims 28-31, the argument set forth above is equally applicable here. The base claims being allowable, the dependent claims must also be allowable.

Claims 39 and 40

With respect to claims 39-40, claims 39-40 are cancelled herewith, accordingly with respect to these claims, the rejection is now moot.

Claim 42

With respect to claim 42, the examiner states that it is well known in the art that the input device of Lagrana could have been used as an input device such as a mouse or any other input device to use for a simulation environment as an input signal receiver. Lagrana allegedly discloses a complex system using a data glove with electronic data monitors and pneumatic controls to provide haptic feedback to the user, whereas claim 42 in this application recites limitations to a mouse-like device that provides haptic feedback to the user. Examiner states that the mouse-like device could be replaced with a mouse; however, the input device in this invention is required to provide haptic feedback, which a standard mouse does not provide.

Therefore it would not be obvious to use a mouse in place of the complex data glove allegedly disclosed in Lagrange.

The Office action admits that Lagrana does not teach an input device such as a mouse or any other input device to use for a simulation environment as a input signal receiver, but does not provide a specific reference where such a limitation is found, instead arguing that one of ordinary skill in the art would have found it obvious to modify the invention in Challenger to arrive at the additional claim limitation. Therefore, applicant assumes that the Office Action intended to take official notice of facts under M.P.E.P. 2144.03 that the rationale supporting the obviousness rejection is based on common knowledge in the art or "well-known" prior art. Under M.P.E.P. 2144.03, "[i]f the applicant traverses such an assertion the examiner should cite a reference in support of his or her position." Applicant hereby traverses the assertion and requests that a reference be cited in support of the position outlined in the Office Action.

#### Claims 43-46

As to dependent claims 43-46, the argument set forth above is equally applicable here. The base claims being allowable, the dependent claims must also be allowable.

#### Claims 51

With respect to claim 51, claim 51 is cancelled herewith, accordingly with respect to this claim, the rejection is now moot.

In view of the foregoing, it is respectfully asserted that the claims are now in condition for allowance.

Conclusion

It is believed that this Amendment places the above-identified patent application into condition for allowance. Early favorable consideration of this Amendment is earnestly solicited.


If, in the opinion of the Examiner, an interview would expedite the prosecution of this application, the Examiner is invited to call the undersigned attorney at the number indicated below.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case. Please charge any additional required fee or credit any overpayment not otherwise paid or credited to our deposit account No. 50-1698.

Respectfully submitted,

THELEN REID & PRIEST, LLP

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David B. Ritchie  
Reg. No. 31,562

Thelen Reid & Priest LLP  
P.O. Box 640640  
San Jose, CA 95164-0640  
Tel. (408) 292-5800  
Fax. (408) 287-8040